



Contents of *Aquaculture*, Volume 190

VOL. 190 NOS. 1, 2

25 OCTOBER 2000

Diseases, Parasites and Predators

Oil-adjuvanted furunculosis vaccines in commercial fish farms: a preliminary epizootiological investigation

P. Smith and M. Hiney (Galway, Ireland) 1

Effects of short term feeding of microalgae on the bacterial flora associated with juvenile Artemia franciscana

A.I. Olsen, Y. Olsen (Trondheim, Norway), Y. Attramadal (Øyestranda, Norway), K. Christie, T.H. Birkbeck (Glasgow, UK), J. Skjermo and O. Vadstein (Trondheim, Norway) 11

Nutrition

Influence of astaxanthin on growth rate, condition, and some blood indices of rainbow trout, *Oncorhynchus mykiss*

J. Řehulka (Opava, Czech Republic) 27

Differing nutritional responses to dietary soybean meal in rainbow trout (*Oncorhynchus mykiss*) and Atlantic salmon (*Salmo salar*)

S. Refstie (Sunndalsøra, Norway), J. Korsøen (Stavanger, Norway), T. Storebakken, G. Baeverfjord, I. Lein (Sunndalsøra, Norway) and A.J. Roem (Stavanger, Norway) 49

Lipid digestibility and metabolism in Atlantic salmon (*Salmo salar*) fed medium-chain triglycerides

C. Røsjo (Ås, Norway), S. Nordrum, J.J. Olli (Trondheim, Norway), Å. Kroghdahl (Oslo, Norway), B. Ruyter (Ås, Norway) and H. Holm (Oslo, Norway) 65

Physiology and Endocrinology

Bovine growth hormone treatment of channel catfish: strain and temperature effects on growth, plasma IGF-I levels, feed intake and efficiency and body composition

J.T. Silverstein, W.R. Wolters (Stoneville, MS, USA), M. Shimizu and W.W. Dickhoff (Seattle, WA, Washington, USA) 77

Seasonal changes in the reproductive condition and body composition of free-ranging red drum, *Sciaenops ocellatus*

S.R. Craig, D.S. MacKenzie (College Station, TX, USA), G. Jones (Freeport, TX, USA) and D.M. Gatlin III (College Station, TX, USA) 89

Role of ecdysteroids and methyl farnesoate in morphogenesis and terminal moult in polymorphic males of the spider crab *Libinia emarginata*

G. Rotllant, P. Takac, L. Liu, G.L. Scott and H. Laufer (Storrs, CT, USA) 103

Photoperiod regulation of growth of juvenile Atlantic halibut (*Hippoglossus hippoglossus* L.)

L.M. Simensen (Horsens, Denmark), T.M. Jonassen (Tromsø, Norway), A.K. Imsland and S.O. Stefansson (Bergen, Norway) 119

Husbandry and Management

- Feeding behaviour of hatchery-reared juveniles of the Japanese flounder following a period of starvation
T. Miyazaki, R. Masuda (Tokyo, Japan), S. Furuta (Tottori, Japan) and K. Tsukamoto (Tokyo, Japan). 129
- Partial nutrient budgets for semi-intensive shrimp farms in Honduras
D.R. Teichert-Coddington (Auburn, AL, USA), D. Martinez and E. Ramírez (Choluteca, Honduras). 139
- Salinity tolerance of larvae of the mangrove red snapper (*Lutjanus argentimaculatus*) during ontogeny
C.B. Estudillo, M.N. Duray, E.T. Marasigan and A.C. Emata (Iloilo City, Philippines). 155
- Growth of juvenile southern rock lobsters, *Jasus edwardsii*, is influenced by diet and temperature, whilst survival is influenced by diet and tank environment
B.J. Crear, C.W. Thomas, P.R. Hart (Hobart, Tas., Australia) and C.G. Carter (Launceston, Tas., Australia). 169
- Oocyte size, a means to evaluate the gametogenic development of the Pacific oyster, *Crassostrea gigas* (Thunberg)
F. Lango-Reynoso, J. Chávez-Villalba, J.C. Cochard and M. Le Pennec (Plouzane, France) 183

VOL. 190 NOS. 3, 4

1 NOVEMBER 2000

Diseases, Parasites and Predators

- Postlarvae and juveniles of a selected line of *Penaeus stylirostris* are resistant to infectious hypodermal and hematopoietic necrosis virus infection
K.F.J. Tang, S.V. Durand, B.L. White, R.M. Redman, C.R. Pantoja and D.V. Lightner (Tucson, AZ, USA). 203

Genetics and Breeding, Economics and Marketing

- Preliminary study on performance of triploid Thai silver barb, *Puntius gonionotus*
W. Koedprang (Trang, Thailand) and U. Na-Nakorn (Bangkok, Thailand) 211

Nutrition

- Enrichment of *Artemia* with free methionine
S.K. Tonheim (Bergen, Norway), W. Koven (Eilat, Israel) and I. Rønnestad (Bergen, Norway) . . . 223
- Dietary lipid level but not L-carnitine affects growth performance of hybrid striped bass (*Morone chrysops* ♀ × *M. saxatilis* ♂)
T.G. Gaylord and D.M. Gatlin III (College Station, TX, USA). 237
- Molecular analysis of the amylase gene and its expression during development in the winter flounder, *Pleuronectes americanus*
S.E. Douglas, S. Mandla and J.W. Gallant (Nova Scotia, Canada) 247
- Growth and survival of European sea bass (*Dicentrarchus Labrax*) larvae fed from first feeding on compound diets containing medium-chain triacylglycerols
S. Fontagné (Saint-Pée-sur-Nivelle, France), J. Robin (Plouzané, France), G. Corraze and P. Bergot (Saint-Pée-sur-Nivelle, France) 261
- Efficacy of dietary methyl esters of *n* - 3 HUFA vs. triacylglycerols of *n* - 3 HUFA by gilthead seabream (*Sparus aurata* L.) juveniles
C. Ibeas, C. Rodríguez, P. Badía (La Laguna, Spain), J.R. Cejas, F.J. Santamaría (Sta. Cruz de Tenerife, Spain) and A. Lorenzo (La Laguna, Spain) 273
- Effects of dietary medium-chain triacylglycerols (tricaprylin and tricaproin) and phospholipid supply on survival, growth and lipid metabolism in common carp (*Cyprinus carpio* L.) larvae
S. Fontagné, L. Burtaire, G. Corraze and P. Bergot (Saint-Pée-sur-Nivelle, France). 289
- Lipid nutrition of juvenile *Litopenaeus vannamei* I. Dietary cholesterol and de-oiled soy lecithin requirements and their interaction
H. Gong, A.L. Lawrence, D.-H. Jiang, F.L. Castille (Port Aransas, TX, USA) and D.M. Gatlin III (College Station, TX, USA) 305

Lipid nutrition of juvenile <i>Litopenaeus vannamei</i> II. Active components of soybean lecithin H. Gong, A.L. Lawrence, D.-H. Jiang (Port Aransas, TX, USA) and D.M. Gatlin III (College Station, TX, USA)	325
The effect of whole body lipid on early sexual maturation of 1+ age male chinook salmon (<i>Oncorhynchus tshawytscha</i>) K.D. Shearer and P. Swanson (Seattle, WA, USA)	343
Husbandry and Management	
Effects of storage temperature and duration on the setting and post-set spat survival of the tropical oyster, <i>Crassostrea iredalei</i> (Faustino) M.N. Devakie and A.B. Ali (Penang, Malaysia)	369
Improving initial survival in cultured seahorses, <i>Hippocampus abdominalis</i> Leeson, 1827 (Teleostei: Syngnathidae) C.M.C. Woods (Wellington, New Zealand)	377
Self-feeding activity patterns in gilthead sea bream (<i>Sparus aurata</i>), red porgy (<i>Pagrus pagrus</i>) and their reciprocal hybrids M. Paspatis, D. Maragoudaki and M. Kentouri (Iraklion, Greece)	389
A method for inducing muscle relaxation in the abalone, <i>Haliotis iris</i> B. Aquilina and R. Roberts (Nelson, New Zealand)	403
Contents of Aquaculture, Volume 190	409

